



October 17, 2014

VIA FED EX

- *Engineering*
- *Remediation*
- *Consulting*

Mr. Richard Staron
Pennsylvania Department of Environmental Protection
Environmental Cleanup Program (ECP)
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

RE: Status Report
ECP – Special Projects – Act 2
Superior Tube Company, Inc.
(eFACTS # 47534)
3900 Germantown Pike
Lower Providence Township, Montgomery County

Dear Mr. Staron:

Pursuant to a Consent Order and Agreement (COA), dated September 14, 2011, with the Pennsylvania Department of Environmental Protection (PADEP), Environmental Alliance, Inc. (Alliance), on behalf of Superior Tube Company, Inc. (“STCP”), submits this Status Report on the progress of the Act 2 Cleanup of the Superior Tube Company, Inc. property in Collegeville, Pennsylvania (“the Site”).

Status Report

- ◆ A Remedial Investigation Report was submitted on May 19, 2011. The Report included written summaries and data from the numerous investigations and remedial activities conducted previously at the Site under the oversight of the United States Environmental Protection Agency (EPA), in accordance with the Resource Conservation and Recovery Act (RCRA) Corrective Action program.
- ◆ A Notice of Intent to Remediate (NIR) the Site, including municipal and public notice of the NIR pursuant to the requirements of Act 2 was submitted on May 25, 2011.
- ◆ A Cleanup Plan, containing a final remedy, site specific standards and a Post Remediation Care Plan were submitted on July 19, 2011.
- ◆ Approval, with comments, of the Remedial Investigation Report and Cleanup Plan was provided by PADEP in written correspondence dated August 19, 2011.

- ◆ The COA dated on or about September 14, 2011, was entered in settlement of Response Costs Liability pursuant to the Hazardous Sites Cleanup Act.
- ◆ In accordance with the COA and in regards to STCI's contribution to the PADEP public water line extension project, STCI and Lower Providence Township are parties to an agreement dated October 13, 2011 by which STCI has agreed to connect properties to existing public water mains within the project area.
- ◆ The Township adopted a mandatory hookup ordinance on March 15, 2012 requiring all properties in the project area to hookup to new or existing public water mains.
- ◆ STCI provided Notice of Award to Bulldog Construction on April 12, 2012 to proceed with construction of property connections to existing water mains. Bulldog Construction began installation of the private water lines in May.
- ◆ Alliance conducted site-wide groundwater monitoring and sampling from May 29 through 31, 2012. Samples were collected from sixteen (16) on-site monitoring, recovery, or production wells, seven (7) residential or commercial and two (2) air strippers (influent and effluent) as per the EPA groundwater monitoring program.
- ◆ Alliance conducted additional groundwater monitoring and sampling of select north recovery system (NRS) wells in April through May 2012 as part of "sensitivity" testing performed in response to an unplanned shutdown of the NRS pumping wells.
- ◆ In July 2012, Bulldog Construction completed construction of all property connections to existing water mains in accordance with their contract.
- ◆ On August 6, 2012, Alliance submitted notification to DEP and EPA of the shutdown of the Dual Phase Extraction (DPE) remediation system.
- ◆ The annual groundwater monitoring and sampling event was conducted from November 26 through 30, 2012. Samples were collected from twenty (20) on-site monitoring, recovery, or production wells, four (4) residential or commercial, and two (2) air strippers (influent and effluent).
- ◆ All active groundwater remediation at the facility has ceased. The SRS and NRS wells used for groundwater remediation and containment were shut down by February 6, 2013.
- ◆ Monthly monitoring and sampling of select interior wells commenced in February 2013 and will continue in accordance with the approved Cleanup Plan.
- ◆ The first Post-Remediation Quarterly Attainment Monitoring Event occurred during the first quarter of 2013. Groundwater monitoring and sampling of point of compliance (POC) wells was conducted during the week of March 11, 2013.
- ◆ One POC well, 2M, reported an exceedance of the TCE site-specific standard (SSS) of 1,800 µg/L in March. On March 12, 2013, 2M reported a dissolved TCE concentration of 2,400 µg/L. The well was resampled on March 29, 2013 and reported a dissolved TCE concentration of 1,500 µg/L, below the SSS. A Notification of Exceedance report was submitted to EPA and PADEP on April 15, 2013, and monthly sampling of 2M was

initiated. The analytical results from the April and May sampling events at 2M indicated dissolved TCE concentrations of 2,200 µg/L and 2,300 µg/L, respectively.

- ◆ In an email dated May 16, 2013, PADEP requested an evaluation of the vapor intrusion exposure pathway in response to the SSS exceedance reported at POC well 2M; specifically requesting that sub-slab and indoor air sampling be conducted in homes adjacent to monitoring well 2M.
- ◆ STCI drafted a vapor intrusion sampling work plan and an access authorization request for the residence at 3927 Beth Drive, the home closest to monitoring well 2M.
- ◆ On June 12, 2013, Alliance received a fully executed copy of the Access Agreement between STCI and Mr. John Errington, homeowner of 3927 Beth Drive. Pursuant to receipt of the executed Agreement, an indoor air building survey / inspection was conducted at the residence on June 14, 2013 and installation of the sub-slab sampling points was completed on June 21, 2013.
- ◆ The sub-slab and indoor air sampling at 3927 Beth Road was conducted during the week of June 24, 2013. None of the chemicals of concern for the Site were detected in any of the sub-slab or ambient air samples. The results of the Vapor Intrusion Investigation were presented in a report dated July 24, 2013 addressed to Mr. Errington, and copied to PADEP and EPA. A winter sampling event also occurred in January 2014.
- ◆ The second Post-Remediation Quarterly Attainment Monitoring Event occurred during the second quarter of 2013. Groundwater monitoring and sampling of POC wells was conducted in June 2013.
- ◆ The third Post-Remediation Quarterly Attainment Monitoring Event occurred during the third quarter of 2013. Groundwater monitoring and sampling of POC wells was conducted in September 2013. All POC wells reported TCE groundwater concentrations below the SSS during the third quarter event.
- ◆ The POC monitoring well MW-1 was added to the monthly sampling plan in October due to an increase in dissolved TCE concentration identified at the well during the third quarter event in September 2013. The sampling results for MW-1 from October were below the SSS for TCE, but the result received for the November sampling event was 2,000 µg/L, above the SSS of 1,800 µg/L. The POC well was resampled during the quarterly event conducted the week of December 9th. The analytical results for MW-1 from the December event indicated a TCE concentration of 1,600 µg/L.
- ◆ Although the exceedance was not confirmed with the December sampling results, STCI proactively submitted a work plan to PADEP and EPA for additional data collection in the area of MW-1 to further evaluate the vapor intrusion pathway. The work plan, dated January 27, 2014, proposed the installation and sampling of soil gas monitoring wells (SGMWs) on Lot 8 in the vicinity of MW-1.
- ◆ The winter sampling of the sub-slab and indoor air at Mr. Errington's residence (3927 Beth Road) was conducted on January 30-31, 2014. No detections of the Site chemicals

of concern were detected in any of the sub-slab or indoor air samples. The results confirm that the dissolved concentrations present in groundwater at 2M do not present a vapor intrusion risk to neighboring houses.

- ◆ The installation of the SGMWs on Lot 8 was conducted on February 20, 2014. The first sampling event was completed by March 6, 2014 with the second event completed on June 6, 2014. The results and data evaluation will be reported to PADEP and EPA in a Cleanup Plan Addendum.
- ◆ The most recent Post-Remediation Quarterly Attainment Monitoring Event was conducted in September 2014.
- ◆ Exceedances of the TCE SSS at MW-1 have been observed since the January 30, 2014 sampling event. The well will continue to be sampled on a monthly basis to evaluate stability in TCE concentrations.

A groundwater analytical data summary table presenting analytical results for the POC wells and interior monitoring wells dating back to 2008 is attached as Table 1. A Potentiometric Surface Map is attached as Figure 1 and the September 2014 TCE groundwater concentrations are depicted on Figure 2.

If you have any questions regarding this submittal or require additional information, please contact me at (302) 234-4400.

Sincerely yours,
ENVIRONMENTAL ALLIANCE, INC.



Joseph Rossi
Project Manager

Attachments

c: Stephen Sinding, PADEP
Khai Dao, USEPA
Rick Warden, STC (via e-mail)
John Peronti, STCI (via e-mail)
Brian Jacot, Greystone Consolidated Companies, Inc. (via e-mail)

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern (µg/L)					
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
PA-US-2500-RES				9,300	7,300	3,500	388,000	1,800	-
MW-1 TOC = 158.24	01/09/08	83.92	74.32	23	<5	<5	<5	110	-
	11/11/08	85.67	72.57	23	<5	<5	<5	120	-
	11/18/09	84.08	74.16	19	<5	<5	<5	79	-
	11/17/10	82.60	75.64	26	<5	<5	<5	87	-
Dup	11/14/11	68.78	89.46	28	<5	<5	<5	110	-
	11/14/11	68.78	89.46	28	<5	<5	<5	110	-
	12/26/11	80.81	77.43	27	<5	<5	<5	65	-
	12/28/11	77.75	80.49	30	<5	<5	<5	60	-
	12/30/11	72.64	85.60	41	<5	<5	<5	280	-
	04/19/12	65.00	93.24	47	<5	<5	<5	350	-
	04/27/12	62.67	95.57	26	<5	<5	<5	140	-
	05/03/12	61.90	96.34	35	6.2	0.9	<0.5	330	<0.5*
	05/09/12	58.75	99.49	26	<5	<5	<5	160	<5
	05/17/12	-	-	30	<5	<5	<5	200	<5
	05/24/12	-	-	57	<5	<5	<5	590	<5
	06/08/12	74.02	84.22	26	<5	<5	<5	120	<5
	11/28/12	69.51	88.73	18	<5	<5	<5	82	<5
	03/13/13	49.60	108.64	26	<5	<5	<5	170	<5
	06/11/13	48.72	109.52	59	<5	<5	<5	470	<5
	09/04/13	48.38	109.86	87	<5	6	<5	1,500	<5
	10/02/13	50.28	107.96	88	<10	<10	<10	1,700	<10
	11/15/13	51.40	106.84	100	<5	7	<5	2,000	<5
	12/12/13	50.29	107.95	97	<5	7	<5	1,600	<5
Dup	-	-	-	85	<10	<10	<10	1,600	<10
	01/13/14	47.60	110.64	100	<25	<25	<25	2,900	<25
	02/28/14	46.88	111.36	110	<25	<25	<25	3,500	<25
	03/17/14	47.30	110.94	100	<25	<25	<25	3,600	<25
	04/08/14	46.80	111.44	110	<10	<10	<10	3,600	<10
	05/09/14	46.98	111.26	120	<5	10	<5	4,400	<5
	06/16/14	48.31	109.93	110	<5	10	<5	4,400	<5
	07/24/14	50.25	107.99	130	<5	10	<5	4,500	<5
	08/21/14	51.27	106.97	120	<5	9	<5	4,300	<5
	09/16/14	51.65	106.59	150	1	14	<1	4,700	<1

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Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)								
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride			
PA-US-2500-RES												
Site Specific Standards				9,300	7,300	3,500	388,000	1,800	—			
TOC = 163.91 2M	01/08/08	—	—	<5	<5	<5	<5	200	—			
	05/28/08	—	—	19	<10	<10	<10	1,800	—			
	11/12/08	—	—	<5	<5	5	<5	180	—			
	11/18/09	—	—	<5	<5	5	<5	260	—			
	11/19/10	—	—	<5	<5	5	<5	250	—			
	05/16/11	—	—	<5	<5	5	<5	330	—			
	09/08/11	—	—	7	<5	<5	<5	860	—			
	11/14/11	123.70	40.21	<10	<10	<10	<10	970	—			
	12/26/11	—	—	7	<5	<5	<5	310	—			
	12/30/11	125.20	38.71	5	<5	<5	<5	230	—			
04/19/12	196.80	—	—	<25	<25	<25	<25	<25	2,000			
	04/27/12	196.80	—	<10	<10	<10	<10	<10	2,000			
	05/02/12	196.80 **	—	<10	<10	<10	<10	1,800	<10			
	05/09/12	196.80 **	-32.89	<25	<25	<25	<25	2,100	<25			
	05/17/12	—	—	11	<10	<10	<10	2,300	<10			
	05/24/12	—	—	10	<5	<5	<5	1,200	<5			
	06/01/12	—	—	17	<10	<10	<10	2,100	<10			
	06/29/12	—	—	<5	<5	<5	<5	250	<5			
	07/06/12	—	—	<5	<5	<5	<5	260	<5			
	10/11/12	181.50 **	-17.59	—	—	—	—	—	—			
03/12/13	107.10	56.81	104.91	8	<5	<5	<5	160	—			
	11/26/12	59.00	—	6	<5	<5	<5	2,400	<5			
	03/29/13	53.01	110.90	<25	<25	<25	<25	1,500	<5			
	04/15/13	52.61	111.30	<10	<10	<10	<10	2,200	<25			
	05/16/13	52.71	111.20	<10	<10	<10	<10	2,300	<10			
	06/11/13	53.05	110.86	<10	<10	<10	<10	3,000	<10			
	08/20/13	52.91	111.00	<5	<5	<5	<5	2,000	<10			
	09/03/13	55.15	108.76	<10	<10	<10	<10	1,600	<5			
	10/02/13	56.31	107.60	<50	<50	<50	<50	2,500	<10			
	11/29/13	55.24	108.67	<5	<5	<5	<5	9,300	<50			
03/19/14	48.21	115.70	<10	<10	<10	<10	3,700	<5	<5			
	50.89	113.02	<25	<25	<25	<25	1,700	<10	<10			
	53.00	110.91	11	<5	<5	<5	<5	3,400	<25			
	52.50	111.41	7	<2	<2	<2	<2	3,300	<5			
								2,000	<2			

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				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride			
TOC = 167.97	PA-US-2500-RES			9,300	7,300	3,500	388,000	1,800	5	2		
	Site Specific Standards			70	100	5	200	—	—	—		
	01/08/08	43.21	124.76	<5	<5	<5	<5	630	—	—		
	05/27/08	43.60	124.37	<5	<5	<5	<5	330	—	—		
	11/11/08	45.51	122.46	<5	<5	<5	<5	290	—	—		
	05/12/09	43.10	124.87	<5	<5	<5	<5	210	—	—		
	11/16/09	43.62	124.35	<5	<5	<5	<5	290	—	—		
	05/18/10	44.08	123.89	<5	<5	<5	<5	500	—	—		
	05/18/10	—	—	<5	<5	<5	<5	480	—	—		
	11/17/10	43.91	124.06	<5	<5	<5	<5	380	—	—		
Dug	05/16/11	43.40	124.57	<5	<5	<5	<5	390	—	—		
	09/08/11	—	—	<5	<5	<5	<5	420	—	—		
	11/15/11	42.89	125.08	<5	<5	<5	<5	130	—	—		
	12/26/11	43.92	124.05	<5	<5	<5	<5	360	—	—		
	12/28/11	42.67	125.30	<5	<5	<5	<5	360	—	—		
	12/30/11	42.56	125.41	<5	<5	<5	<5	300	—	—		
	04/19/12	43.25	124.72	<5	<5	<5	<5	330	<5	—		
	04/27/12	42.35	125.62	<5	<5	<5	<5	170	<5	—		
	05/03/12	41.12	126.85	1.3	<0.5	<0.5	<0.5	420	<0.5	—		
	05/09/12	41.60	126.37	<5	<5	<5	<5	470	<5	—		
Dug	05/17/12	—	—	<5	<5	<5	<5	510	<5	—		
	05/24/12	—	—	<5	<5	<5	<5	570	<5	—		
	05/29/12	42.68	125.29	<5	<5	<5	<5	300	<5	—		
	06/08/12	43.10	124.87	<5	<5	<5	<5	170	<5	—		
	11/26/12	43.41	124.56	<5	<5	<5	<5	250	<5	—		
	03/12/13	35.70	132.27	<5	<5	<5	<5	270	<5	—		
	06/13/13	39.12	128.85	<5	<5	<5	<5	280	<5	—		
	09/05/13	39.70	128.27	<5	<5	<5	<5	290	<5	—		
	12/1/13	40.21	127.76	<5	<5	<5	<5	260	<5	—		
	03/18/14	39.40	128.57	<5	<5	<5	<5	220	<5	—		
Dug	06/18/14	40.34	127.63	<1	<1	<1	<1	300	<1	—		
	09/15/14	42.28	125.69	1	<1	<1	<1	420	<1	—		

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				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
Site Specific Standards				9,300	7,300	3,500	388,000	1,800	—
TOC = 168.70				70	100	5	200	5	2
4M	01/07/08	160.30	8.40	<500	<500	<500	<500	69,000	—
	05/28/08	156.11	12.59	<500	<500	<500	<500	62,000	—
	11/10/08	—	—	<500	<500	<500	<500	54,000	—
	05/12/09	—	—	<500	<500	<500	<500	57,000	—
	11/16/09	157.57	11.13	<500	<500	<500	<500	64,000	—
	05/17/10	160.00	8.70	300	<250	<250	<250	88,000	—
	11/15/10	179.00	-10.30	<50	<50	<50	<50	16,000	—
	12/09/10	—	—	53	<16	20	<16	19,000	—
	01/11/11	—	—	58	<50	<50	<50	14,000	—
	02/28/11	—	—	<50	<50	<50	<50	8,600	—
	03/15/11	—	—	<50	<50	<50	<50	7,500	—
	04/05/11	—	—	<25	<25	<25	<25	4,000	—
	05/04/11	—	—	<100	<100	<100	<100	11,000	—
	05/16/11	167.30	1.40	<25	<25	<25	<25	7,700	—
	06/09/11	—	—	<250	<250	<250	<250	25,000	—
	08/22/11	174.70	-6.00	10	<5	6	<5	880	—
	09/08/11	—	—	11	<5	<5	<5	900	—
	10/19/11	—	—	<25	<25	<25	<25	3,300	—
	11/14/11	174.90	-6.20	7	<5	<5	<5	510	—
	12/05/11	—	—	<50	<50	<50	<50	10,000	—
	12/26/11	169.10	-0.40	<100	<100	<100	<100	24,000	—
	12/30/11	86.90	81.80	<50	<50	<50	<50	15,000	—
	02/24/12	—	—	<50	<50	<50	<50	13,000	<50
	03/06/12	—	—	<50	<50	<50	<50	8,600	<50
	03/29/12	—	—	33	<25	<25	<25	11,000	<25
	04/19/12	120.80	47.90	<50	<50	<50	<50	4,200	<50
	04/27/12	120.00	48.70	<25	<25	<25	<25	3,800	<25
	05/02/12	76.72	91.98	<50	<50	<50	<50	15,000	<50
	05/09/12	80.12	88.58	<100	<100	<100	<100	14,000	<100
	05/17/12	—	—	<100	<100	<100	<100	17,000	<100

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Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)					
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
PA-US-2500-RES				70	100	5	200	5	—
4M cont'd	05/29/12	—	—	9,300	7,300	3,500	388,000	1,800	—
	06/08/12	—	—	<10	<10	<10	<10	1,700	<10
	07/25/12	—	—	13	<5	8	<5	4,100	<5
	08/21/12	—	—	<25	<25	<25	<25	4,900	<25
	09/10/12	—	—	<100	<100	<100	<100	20,000	<100
	10/11/12	138.5 **	—	57	<25	26	<25	15,000	<100
	11/26/12	159.60	9.10	<50	<50	<50	<50	18,000	<25
	02/06/13	174.30	-5.60	<25	<25	<25	<25	14,000	<50
	02/28/13	59.35	109.35	<25	<25	<25	<25	2,100	<25
	03/11/13	59.04	109.66	<50	<50	<50	<50	3,400	<25
	04/15/13	58.20	110.50	<130	<130	<130	<130	7,600	<50
	05/16/13	57.58	111.12	<10	<10	<10	<10	6,800	<5
	06/11/13	57.70	111.00	69	<50	<50	<50	12,000	<130
	07/11/13	57.40	111.30	57	<50	<50	<50	41,000	<10
	08/20/13	58.01	110.69	52	<50	<50	<50	19,000	<50
	09/03/13	57.92	110.78	<100	<100	<100	<100	18,000	<50
	10/02/13	59.91	108.79	<50	<50	<50	<50	16,000	<50
	11/29/13	61.02	107.68	220	<100	<100	<100	27,000	<100
	12/13/13	60.14	108.56	230	<5	27	14	12,000	<50
	01/30/14	58.22	110.48	—	—	—	—	45,000	<100
	02/28/14	56.12	112.58	30	<25	<25	<25	37,000	<5
	03/19/14	55.70	113.00	<25	<25	<25	<25	—	—
Dup	03/19/14	—	—	25	<25	<25	<25	5,800	<25
	04/09/14	56.30	112.40	46	<10	13	<10	4,900	<25
	05/09/14	55.83	112.87	140	<50	<50	<50	5,200	<25
	06/19/14	57.80	110.90	90	<20	24	<20	8,500	<10
	07/24/14	57.20	111.50	68	<10	16	<10	31,000	<50
	08/21/14	60.79	107.91	120	<20	29	<20	19,000	<20
	09/10/14	61.18	107.52	54	<5	12	<5	14,000	<10

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)					
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
				70	100	5	200	5	2
				9,300	7,300	3,500	388,000	1,800	-
Site Specific Standards									
TOC = 125.76	01/07/08	20.71	105.05	<5	<5	<5	<5	<5	-
	05/28/08	20.25	105.51	<5	<5	<5	<5	<5	-
	11/10/08	21.95	103.81	<5	<5	<5	<5	<5	-
	05/11/09	19.31	106.45	<5	<5	<5	<5	<5	-
	11/18/09	22.37	103.39	<5	<5	<5	<5	<5	-
	05/19/10	20.61	105.15	<5	<5	<5	<5	<5	-
	11/17/10	19.78	105.98	<5	<5	<5	<5	<5	-
	05/17/11	20.59	105.17	<5	<5	<5	<5	<5	-
	11/14/11	20.31	105.45	<5	<5	<5	<5	<5	-
	05/03/12	19.95	105.81	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*
	05/09/12	19.55	106.21	<5	<5	<5	<5	<5	<5
	05/17/12	-	-	<5	<5	<5	<5	<5	<5
	05/24/12	-	-	<5	<5	<5	<5	<5	<5
	05/29/12	20.39	105.37	<5	<5	<5	<5	<5	<5
	06/08/12	23.11	102.65	<5	<5	<5	<5	<5	<5
	11/28/12	20.54	105.22	<5	<5	<5	<5	46	<5
	03/11/13	18.89	106.87	<5	<5	<5	<5	<5	<5
	06/11/13	20.29	105.47	<5	<5	<5	<5	<5	<5
	09/03/13	22.15	103.61	<5	<5	<5	<5	<5	<5
	12/12/13	21.35	104.41	<5	<5	<5	<5	7	<5
	03/17/14	20.80	104.96	<5	<5	<5	<5	<5	<5
	06/16/14	23.15	102.61	<1	<1	<1	<1	<1	<1
	09/15/14	24.70	101.06	<1	<1	<1	<1	<1	<1

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.
COLLEGEVILLE, PA

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)					
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
				70	100	5	200	5	2
				9,300	7,300	3,500	388,000	1,800	—
MW-17									
TOC = 200.27	01/09/08	94.37	105.90	<5	<5	8	<5	29	<5
	05/27/08	102.10	98.17	—	—	—	—	—	—
	11/12/08	97.23	103.04	<5	<5	24	<5	<5	—
	05/12/09	107.08	93.19	—	—	—	—	—	—
	11/17/09	112.61	87.66	<5	<5	9	<5	<5	—
	05/17/10	112.22	88.05	<5	<5	12	<5	6	—
	11/17/10	115.60	84.67	<5	<5	—	—	—	—
	05/16/11	103.41	96.86	—	—	—	—	—	—
	11/17/11	89.90	110.37	<5	<5	9	<5	5	—
	05/03/12	32.82	167.45	<5	<5	—	—	—	—
	11/27/12	96.60	103.67	<5	<5	<5	<5	<5	<5
	03/13/13	72.55	127.72	<5	<5	<5	<5	<5	<5
	06/14/13	72.15	128.12	<5	<5	5	<5	<5	<5
	09/04/13	80.59	119.68	<5	<5	5	<5	12	<5
	12/12/13	92.39	107.88	<5	<5	10	<5	<5	<5
	03/18/14	90.27	110.00	<5	<5	<5	<5	<5	<5
	06/18/14	79.80	120.47	<1	<1	3	<1	1	<1
	09/16/14	91.15	109.12	<1	<1	4	<1	<1	<1

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)					
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
PA-US-2500-RES				9,300	7,300	3,500	388,000	1,800	—
MW-21 TOC = 178.11	01/09/08	121.36	56.75	<5	<5	11	<5	11	—
	05/27/08	123.98	54.13	<5	<5	<5	<5	<5	—
	11/12/08	124.04	54.07	<5	<5	<5	<5	<5	—
	05/12/09	123.50	54.61	<5	<5	<5	16	<5	37
Dup	11/18/09	122.57	55.54	<5	<5	<5	<5	<5	—
	11/18/09	—	—	<5	<5	<5	<5	<5	—
Dup	05/17/10	129.63	48.48	<5	<5	<5	<5	<5	—
	11/17/10	122.50	55.61	<5	<5	<5	<5	<5	—
Dup	05/16/11	117.33	60.78	<5	<5	<5	<5	<5	—
	05/16/11	—	—	<5	<5	<5	<5	<5	—
	11/15/11	98.86	79.25	<5	<5	<5	<5	<5	—
	12/26/11	121.55	56.56	<5	<5	<5	<5	<5	—
	12/28/11	108.41	69.70	<5	<5	<5	<5	<5	—
	12/30/11	96.09	82.02	<5	<5	<5	<5	<5	—
	05/03/12	87.18	90.93	<0.5	<0.5	<0.5	<0.5	<0.5	1
	05/09/12	81.80	96.31	<5	<5	<5	<5	<5	—
	05/17/12	—	—	<5	<5	<5	<5	<5	—
	05/24/12	—	—	<5	<5	<5	<5	<5	—
	05/29/12	94.97	83.14	<5	<5	<5	<5	<5	—
	06/08/12	100.51	77.60	<5	<5	<5	<5	<5	—
	11/26/12	93.89	84.22	<5	<5	<5	<5	<5	—
	03/11/13	68.67	109.44	<5	<5	<5	<5	<5	—
	06/10/13	67.45	110.66	<5	<5	<5	<5	<5	—
	09/03/13	67.75	110.36	<5	<5	<5	<5	<5	—
	12/09/13	69.97	108.14	<5	<5	<5	<5	<5	—
	03/17/14	66.68	111.43	<5	<5	<5	<5	<5	—
	06/16/14	68.05	110.06	<1	<1	<1	<1	<1	—
	09/15/14	71.42	106.69	<1	<1	<1	<1	<1	—

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)					
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
PA-US-2500-RRES				9,300	7,300	3,500	388,000	1,800	-
MW-22 TOC = 161.55	01/08/08	179.90	-18.35	<5	<5	10	<5	640	<5
	05/28/08	180.02	-18.47	<5	<5	10	<5	560	-
	11/10/08	180.20	-18.65	<5	<5	10	<5	530	-
	05/12/09	180.10	-18.55	5	<5	9	<5	580	-
	11/16/09	> 200	-	5	<5	9	<5	700	-
	05/17/10	214.00	-52.45	7	<5	9	<5	1,000	-
	11/15/10	98.35	63.20	8	<5	9	<5	800	-
	05/16/11	> 200	-	9	<5	9	<5	840	-
	09/08/11	-	-	26	<10	<10	<10	2,500	-
	10/19/11	-	-	<5	8	8	<5	500	-
	11/15/11	168.10	-6.55	6	<5	7	<5	440	-
	12/05/11	-	-	10	<5	6	<5	970	-
	12/26/11	77.75	83.80	9	<5	8	<5	790	-
	12/30/11	79.10	82.45	26	<25	<25	<25	1,800	-
	03/06/12	-	-	8	<5	8	<5	780	<5
	04/19/12	167.60	-6.05	79	<50	<50	<50	6,400	<50
	04/27/12	167.20	-5.65	77	<25	<25	<25	5,700	<25
	05/02/12	70.10	91.45	75	<50	<50	<50	6,600	<50
	05/09/12	64.95	96.60	97	<25	<25	<25	7,500	<25
	05/17/12	-	-	92	<25	<25	<25	7,500	<25
	05/24/12	-	-	<10	<10	<10	<10	1,200	<10
	05/29/12	-	-	9	<5	7	<5	1,200	<5
	06/08/12	151.36	10.19	9	<5	8	<5	890	<5
	07/25/12	-	-	7	<5	10	<5	760	<5
	08/21/12	-	-	7	<5	9	<5	660	<5
	11/26/12	137.60	23.95	13	<5	9	<5	1,300	<5
	02/28/13	53.42	108.13	87	<50	<50	<50	7,600	<50
	03/11/13	53.07	108.48	58	<5	9	<5	5,300	<5
	04/15/13	54.25	107.30	51	<50	<50	<50	5,700	<50
	05/16/13	52.00	109.55	67	<25	<25	<25	8,500	<25
	06/11/13	54.51	107.04	58	<25	<25	<25	6,200	<25
	07/11/13	51.56	109.99	42	<25	<25	<25	5,400	<25
	08/20/13	52.20	109.35	54	<25	<25	<25	6,800	<25
	09/03/13	52.33	109.22	110	<50	<50	<50	12,000	<50
	10/02/13	54.51	106.25	44	<25	<25	<25	7,700	<25
	11/29/13	55.30	107.78	170	<50	<50	<50	14,000	<50
	12/13/13	54.27	107.28	190	<5	9	<5	14,000	<5
	01/30/14	--	--	140	<100	<100	<100	16,000	<100
	02/27/14	50.61	110.94	150	<100	<100	<100	15,000	<100
	03/19/14	50.80	110.75	67	<50	<50	<50	7,900	<50
	09/08/14	53.20	108.35	-	-	-	-	-	-

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)						
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride	
PW-1 TOC = 200.40	01/09/08	118.00 NM	82.40 NM	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	5 5	<5 -
	05/28/08	125.00	75.40	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	<5 -
	11/11/09	132.37	68.03	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	<5 12	<5 -
	05/18/10	137.20	63.20	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	24	-
	11/17/10	140.85	59.55	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	-	-
	05/16/11	124.00	76.40	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	-	-
	11/15/11	107.90	92.50	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	-	-
	05/29/12	124.40	76.00	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	-	-
Dip	11/27/12	118.30	82.10	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	-	-
	03/13/13	68.70	131.70	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	-	-
	06/11/13	68.65	131.75	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	-	-
	09/04/13	77.70	122.70	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	-	-
	09/04/13	-	-	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	-	-
	12/1/13	91.26	109.14	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	-	-
	03/18/14	89.47	110.93	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	-	-
	06/17/14	78.82	121.58	<1 <1	<1 <1	<1 <1	<1 <1	<1 <1	-	-
	09/16/14	87.88	112.52	<1 <1	<1 <1	<1 <1	<1 <1	<1 <1	-	-
PW-3 TOC = 186.92	01/09/08	72.50	114.42	<5 <5	<5 <5	<5 <5	17 14	<5 <5	320 290	<5 -
	05/28/08	80.00	106.92	<5 <5	<5 <5	<5 <5	14 24	<5 <5	1,300 290	-
	11/10/08	84.60	102.32	<5 <5	<5 <5	<5 <5	9 10	<5 <5	410 410	-
	05/11/09	83.70	103.22	<5 <5	<5 <5	<5 <5	10 10	<5 <5	570 570	-
	11/16/09	87.80	99.12	<5 <5	<5 <5	<5 <5	13 13	<5 <5	310 310	-
	05/17/10	88.70	98.22	<5 <5	<5 <5	<5 <5	20 10	<5 <5	760 430	-
	11/15/10	96.30	90.62	<5 <5	<5 <5	<5 <5	10 10	<5 <5	290 290	-
	05/17/11	83.02	103.90	<5 <5	<5 <5	<5 <5	18 18	<5 <5	470 470	-
	11/16/11	70.00	116.92	<5 <5	<5 <5	<5 <5	13 13	<5 <5	310 310	-
	05/30/12	81.00	105.92	<5 <5	<5 <5	<5 <5	20 10	<5 <5	760 430	-
	11/27/12	74.60	112.32	<5 <5	<5 <5	<5 <5	24 10	<5 <5	380 290	-
	03/13/13	50.12	136.80	<5 <5	<5 <5	<5 <5	24 10	<5 <5	380 290	-
	06/12/13	49.00	137.92	<5 <5	<5 <5	<5 <5	26 18	<5 <5	380 470	-
	09/04/13	57.42	129.50	<5 <5	<5 <5	<5 <5	21 13	<5 <5	350 310	-
	12/1/13	71.00	115.92	<5 <5	<5 <5	<5 <5	18 13	<5 <5	250 760	-
	03/18/14	58.75	128.17	<5 <5	<5 <5	<5 <5	17 25	<5 <1	52 180	-
	06/18/14	56.29	130.63	3 <1	<1 <1	<1 <1	25 19	<1 <1	180 79	-
	09/16/14	67.40	119.52	1 <1	<1 <1	<1 <1	<1 <1	<1 <1	<1 <1	-

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)						
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1-L-TCA	TCE	Vinyl Chloride	
Site Specific Standards				9,300	7,500	3,500	383,000	1,800	-	
PW-3D TOC = 187.24	01/09/08	87.87	99.37	<5	<5	<5	<5	6	<5	
	05/27/08	92.18	95.06	-	-	-	-	-	-	
	11/10/08	81.61	105.63	<5	<5	<5	<5	<5	<5	
	05/12/09	96.66	90.58	-	-	-	-	-	-	
	11/17/09	102.77	84.47	<5	<5	<5	<5	69	-	
	05/17/10	105.76	81.48	-	-	-	-	-	-	
	11/15/10	100.91	86.33	<5	<5	<5	<5	<5	<5	
	05/16/11	90.17	97.07	-	-	-	-	-	-	
	11/16/11	79.82	107.42	<5	<5	<5	<5	<5	<5	
	05/31/12	88.75	98.49	-	-	-	-	-	-	
Dup	11/28/12	82.16	105.08	<5	<5	<5	<5	<5	<5	
	03/13/13	65.51	121.73	<5	<5	<5	<5	100	<5	
	06/12/13	65.11	122.13	<10	<10	<22	<10	1,300	<10	
	06/12/13	-	-	6	<5	28	<5	1,400	<5	
	09/04/13	73.80	113.44	<5	<5	26	<5	1,000	<5	
	12/11/13	86.64	100.60	6	<5	27	<5	1,000	<5	
	03/18/14	76.79	110.45	<5	<5	22	<5	410	<5	
	06/17/14	75.55	111.69	2	<1	19	<1	230	<1	
	09/16/14	83.55	103.69	1	<1	16	<1	51	<1	
PW-5 TOC = 205.58	01/10/08	98.50	107.08	-	-	-	-	-	-	
	05/28/08	NM	NM	<5	<5	7	<5	<5	<5	
	11/12/08	97.45	108.13	-	-	-	-	-	-	
	05/12/09	98.26	107.32	<5	<5	10	<5	<5	<5	
	11/16/09	127.20	78.38	<5	<5	7	<5	<5	<5	
	05/19/10	132.00	73.58	<5	<5	7	<5	<5	<5	
	11/15/10	119.90	85.68	<5	<5	<5	<5	<5	<5	
	05/16/11	105.80	99.78	<5	<5	8	<5	15	<5	
	11/15/11	97.95	107.63	<5	<5	<5	<5	<5	<5	
	05/31/12	104.51	101.07	<5	<5	9	<5	<5	<5	
	03/12/13	86.20	119.38	<5	<5	5	<5	7	<5	
	-	-	-	<5	<5	7	<5	9	<5	
	03/29/13	68.10	137.48	<5	<5	8	<5	<5	<5	
	06/11/13	96.84	108.74	<5	<5	9	<5	<5	<5	
	09/04/13	113.21	92.37	<5	<5	6	<5	<5	<5	
	12/11/13	104.35	101.23	<5	<5	7	<5	<5	<5	
	06/16/14	101.05	104.53	<1	<1	8	<1	2	<1	
	09/16/14	107.72	97.86	<1	<1	6	<1	1	<1	

TABLE 1
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POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)					
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
	PA-US-2500-RES			70	100	5	200	5	—
	Site Specific Standards			9,300	7,300	3,500	388,000	1,800	—
Speck's Chicken Well TOC = 171.92	01/09/08	75.94	95.98	6	<5	<5	<5	<5	<5
	05/27/08	74.21	97.71	7	<5	<5	<5	<5	5
	11/12/08	NM	NM	5	<5	<5	<5	<5	—
	05/13/09	75.72	96.20	<5	<5	<5	<5	<5	<5
	11/19/09	76.05	95.87	5	<5	<5	<5	<5	<5
	05/19/10	73.91	98.01	5	<5	<5	<5	<5	<5
	11/19/10	76.46	95.46	6	<5	<5	<5	<5	33
	05/18/11	74.49	97.43	6	<5	<5	<5	<5	—
	11/18/11	72.36	99.56	6	<5	<5	<5	<5	—
	05/30/12	70.85	101.07	7	<5	<5	<5	<5	<5
	11/29/12	61.70	110.22	7	<5	<5	<5	<5	<5
	03/12/13	66.00	105.92	5	<5	<5	<5	<5	<5
	06/11/13	64.29	107.63	6	<5	<5	<5	<5	<5
	09/04/13	68.17	103.75	6	<5	<5	<5	<5	<5
	12/11/13	68.55	103.37	7	<5	<5	<5	<5	<5
	03/19/14	51.30	120.62	7	<5	<5	<5	<5	<5
	06/17/14	51.26	120.66	5	<1	<1	<1	1	<1
	09/15/14	69.89	102.03	9	<1	<1	<1	<1	<1
BBFIELD —	01/07/08	86.62	<5	<5	<5	<5	<5	<5	—
	05/28/08	87.35	<5	<5	<5	<5	<5	12	—
	11/11/08	88.35	<5	<5	<5	<5	<5	7	—
	05/11/09	86.40	<5	<5	<5	<5	<5	75	—
	11/11/09	86.91	<5	<5	<5	<5	<5	6	—
	05/17/10	86.40	<5	<5	<5	<5	<5	<5	—
	11/17/10	86.65	<5	<5	<5	<5	<5	15	—
	05/17/11	84.35	<5	<5	<5	<5	<5	11	—
	11/15/11	84.32	<5	<5	<5	<5	<5	35	—
	05/30/12	83.40	<5	<5	<5	<5	<5	<5	<5
	Dup	—	<5	<5	<5	<5	<5	<5	<5
	Dup	11/27/12	80.74	<5	<5	<5	<5	9	<5

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)					
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
	PA-US-2500-RES			70	100	5	200	5	2
	Site Specific Standards			9,300	7,300	3,500	388,000	1,800	-
BBFIELD	02/28/13	78.25	74.49	-	<5	8	<5	94	<5
conf'd	03/12/13	-	-	-	<5	<5	<5	27	<5
Drip	03/12/13	-	-	-	<5	<5	<5	26	<5
	04/15/13	72.71	72.45	-	<5	<5	<5	280	<5
	05/16/13	72.45	72.70	-	<5	<5	<5	400	<5
	06/10/13	72.70	72.25	-	<5	<5	<5	650	<5
	07/11/13	72.25	72.85	-	<5	<5	<5	460	<5
	08/20/13	72.85	72.89	-	<5	<5	<5	560	<5
	09/03/13	72.89	77.12	-	<5	<5	<5	610	<5
	10/02/13	77.12	-	-	<5	<5	<5	<5	<5
	11/15/13	80.75	-	-	<5	<5	<5	<5	<5
	12/09/13	79.03	-	-	<5	<5	<5	<5	<5
	01/30/14	73.30	-	-	<5	<5	<5	<5	<5
	02/28/14	71.56	-	-	<5	<5	<5	<5	<5
	03/17/14	71.55	-	-	<5	<5	<5	<5	<5
	04/08/14	70.90	-	-	1	<1	2	2	<1
	06/16/14	72.60	-	-	1	<1	6	<1	13
	09/08/14	80.38	-	-	-	-	-	-	-

$\mu\text{g/l}$ = micrograms per liter

< = analyte not detected at or above the specified laboratory detection limit

TOC = Top of Casing. The units are feet above mean sea level (ft msL).

J = estimated value; added during data validation review process

Wells highlighted in blue are Point of Compliance (POC) wells.

Bolded values indicate results are in exceedence of site specific standards.

PA-U-A-2500-RESS = PADEP SRS Medium-Specific Concentrations in Groundwater, Residential Used Aquifer, TDS \leq 2,500, Residential, Jan. 2011

PCE = Tetrachloroethene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethylene

cis-1,2-DCE = cis-1,2-Dichloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene

* = Samples analyzed using EPA Method 524.2

** = Digital liquid level reading